

**ANNEX A, APPENDIX 5
NAVAL NUCLEAR PROPULSION PROGRAM
AREAS OF PLANNING ATTENTION
EMERGENCY CLASSIFICATION LEVELS
AND
WASHINGTON STATE EOC OPERATIONAL PHASES**

I. NAVAL NUCLEAR PROPULSION PROGRAM AREAS OF PLANNING ATTENTION

EPZ's established by NUREG 0654/FEMA REP-1 are not applicable to naval nuclear propulsion plants. Because of differences in the design and operation of naval nuclear propulsion plants when compared to commercial nuclear power plants, the exposure to the public would be localized and not severe in the highly unlikely event of a release of radioactivity from a ship. Therefore, there is no need for the Kitsap and Snohomish counties to have special emergency response plans as required for counties near commercial nuclear power plants are located.

To assist State and local authorities in assessing the need for any preplanning in the vicinity of naval bases or shipyards where nuclear-powered vessels are berthed, the Naval Nuclear Propulsion Program has designated Areas of Planning Attention. The areas of planning attention extend 0.5-miles around every location where nuclear-powered vessels are normally berthed (i.e., from the actual dock or pier—not the shipyard or naval base property boundary). The 0.5-mile distance is based on detailed, conservative analysis of worst-case, but credible scenarios—the actual radius of the impacted downwind area will most likely be smaller. For PSNS and naval Station Everett, only small portions (e.g., a few blocks) of the Areas of Planning Attention cross over the Federal Property boundaries. For Submarine Base Bangor, the Areas of Planning Attention are within the Federal property boundary. (See maps in Appendix 7 to this Annex). The counties are responsible for making Protective Action Decisions (PADs) and implementing appropriate protective measures to protect persons within its jurisdiction, but outside of the Naval Nuclear Propulsion Program facility's boundary. The Washington State role is to assist the county through technological assessment of the incident, making recommendations for protective measures and other emergency response assistance when requested by the county.

II. NAVAL NUCLEAR PROPULSION PROGRAM DOSE BASED EVENT CLASSIFICATION METHODOLOGY

The Naval Nuclear Propulsion Program uses the four classes of Emergency Action Levels (EAL's) specified in NUREG-0654/FEMA REP-

1, criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in support of Nuclear power plants. While the Naval Nuclear Propulsion Program uses the same four classes as commercial nuclear power plants the Naval Nuclear Propulsion Program's methodology for establishing the EAL's is different. The Nuclear Regulatory Commission (NRC) and Federal Emergency Management Agency (FEMA) guidance for establishing EAL's contained in NUREG-0654/FEMA REP-1 is primarily based on plant or site conditions (e.g., loss of offsite power, loss of one or more fission product barriers). Because of differences in the design and operation of Naval Nuclear Propulsion Program nuclear propulsion plants, the NRC/FEMA guidance is not applicable to Naval Nuclear Propulsion Program nuclear propulsion plants. Instead, the Naval Nuclear Propulsion Program EAL's are normally classified based on a conservative estimate of total radiation exposure to a hypothetical member of the public located near the Federal government property boundary (or nearest public residence) in terms of dose to the whole body (i.e., Total Effective Dose Equivalent (TEDE)) or to the thyroid during the plume phase. The Naval Nuclear Propulsion Program used the Protective Action /Guides (PAGs) specified by the U.S. Environmental Protection Agency (EPA) in EPA 400-R-92-001 of October 1991, Manual of Protective Action Guides and Protective Actions (1 Rem TEDE, 5 Rem Committed Dose Equivalent (CDE) thyroid). The dose thresholds for the lower tier event classes (i.e., Site Area Emergency, Alert, and Unusual Event) were then established using fractions of the EPA PAGs.

<u>Event Classification</u>	<u>Radiation Dose*</u>	<u>Radioiodine Dose</u>
Unusual Event	<0.01 Rem	<0.05 Rem
Alert	>0.01 to <0.1 Rem	>0.05 to <0.5 Rem
Site Area Emergency	>0.1 to < 1.0 Rem	>0.5 to < 5.0 Rem
General Emergency	> 1.0 Rem	> 5.0 Rem

*Normally based on exposure levels of a hypothetical person located at the Federal government property boundary or the nearest public residence.

The dose estimates are made, using actual field survey data taken near the Federal facility property boundary and a two-hour release is assumed if the duration of the release is unknown. Since field survey data will not be immediately available, the Naval Nuclear propulsion Program will normally assign an initial event classification of "Alert" if an event involves actual or potential for reactor core damage and there is an actual or potential for a release to the environment. An initial event classification of "Unusual Event" will be normally assigned if a reactor core is not involved (e.g, facility fire involving radioactive materials), and a release to the environment has occurred with potential for measurable dose to a

hypothetical member of the public near the Federal facility property boundary.

III. NAVAL NUCLEAR PROPULSION PROGRAM EMERGENCY CLASSIFICATION LEVELS

A. Unusual Event-Washington State Emergency Operation Center (EOC) Operation Phase I

1. Description

Unusual events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant. No release of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

2. Action

Immediately notify appropriate state and local authorities and provide current information on the event. Confirm that no specific action by civil authorities or the public is required. Dispatch facility offsite monitoring personnel if appropriate.

B. Alert – Washington State EOC Operational Phase II

1. Description

Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action guideline exposure levels near the Federal property boundary.

2. Action

Immediately notify appropriate state and local authorities to stand by and provide current information on the event. Confirm that no specific protective actions are required at this time for the public. Dispatch facility offsite monitoring personnel.

C. Site Area Emergency – Washington State EOC Operational Phase III

1. Description

Events are in progress or have occurred which involve actual or likely major failure or plant functions needed for protection of the public. Any releases are not expected to exceed EPA Protective Action Guideline exposure levels beyond the Federal property boundary.

2. Action

Immediately notify appropriate state and local authorities and provide current information on the event. Recommend steps be taken to control access and warn the general public. Recommend preparatory steps be taken for directing the general public in specific sectors to evacuate or take shelter. Dispatch facility offsite monitoring personnel.

D. General Emergency – Washington State EOC Operational Phase III

1. Description

Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases can be expected to exceed EPA Protective Action guideline exposure levels near the Federal property boundary.

2. Action

Immediately notify appropriate state and local authorities and provide current information on the event. Recommend steps be taken to control access. Recommend the general public in specific sectors be directed to evacuate or take shelter. Dispatch facility offsite monitoring personnel.